



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,620	06/06/2007	Zhi-Zhong Yu	040257	3308

23696 7590 09/28/2010
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

DOAN, PHUOC HUU

ART UNIT	PAPER NUMBER
----------	--------------

2617

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

09/28/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No. 10/591,620	Applicant(s) YU, ZHI-ZHONG	
	Examiner PHUOC DOAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Claim Objections

2. Claims 2-9 are objected to because of the following informalities: claims 2-9 with the beginning a letter “A” should be change to a letter “The”. Appropriate correction is required.

Claim 21 is improper dependant on multiple claims.

Claim 25 is improper dependant or reference to accompanying drawing.

Suggestion: the claimed language are accepted “claimed in any preceding claim”, however, it is clear for dependent on one claim.

Claim Rejections - 35 USC § 101

3. Claims 1, 16 are rejected under 35 U.S.C. 101 because:

Claim(s) 1 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decision indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing.

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. Claimed recited only described communication session; electronic message; party without any specific devices or apparatus to tie the process step.

Note: the Examiner suggests amending at least one step in claim to positively recite the statutory item or device (**in this case, the process of modulating need to be tie to mode controller 44 in Figure 3**) that performs the step in order to 'tie' the process to a particular statutory category.

Allowable Subject Matter

Claims 1-25 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1, 10, 16-18, and their dependant thereof, are allowed, the closest of prior art, Hosur (US Pub No. 2003/0152023) discloses orthogonal frequency division multiplexing system with differing control parameters corresponding to different data points in a single symbol, Azenkot (US Pub No. 2002/0154620) discloses head end receiver for digital data delivery systems using mixed mode SCDMA and TDMA multiplexing, either alone or in combination, fail to disclose a method of effecting a smooth transition between adjacent digital information bursts transmitted in different modulation formats, the method comprising: selecting a first code sequence for a first digital symbol burst to be transmitted, which first sequence comprises a set of end symbols with a first particular symbol pattern; selecting a second code sequence for a second digital symbol burst to be transmitted after the first digital symbol burst, which second sequence comprises a set of start symbols with a second particular symbol pattern; modulating the first digital symbol burst in a first modulation format; modulating the second digital symbol burst in a second modulation format different than the first modulation format; and transmitting the modulated first and second digital symbol bursts, the

transmission of the second digital symbol burst starting upon completion of the transmission of the first digital symbol burst at an instant so selected that transmission of the end set of bits of the first code sequence is synchronized in time with the start set of bits of the second code sequence.

4. Claim 1-25 would be allowed if rewritten to overcome the 35 USC & 101 rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571) 272-7920. The examiner can normally be reached on Mon-Tue, Thu-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
Examiner, Art Unit 2617